



国立研究開発法人理化学研究所 仁科加速器研究センター
第223回 RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 223rd RIBF Nuclear Physics Seminar

The r-process: status & challenges

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Approximately half of the solar abundances of elements heavier than the iron group were contributed by nucleosynthesis via rapid neutron capture, the r-process. The extensive theoretical, observational, and experimental studies of this process over the past 60 years have led to many insights into its detailed mechanisms and associated astrophysical environments. These advances are made in parallel to the progress in our understanding of the fundamental properties of neutrinos and nuclei on the one hand, and the macroscopic phenomena of core-collapse supernovae and neutron-star mergers on the other. Astrophysical models of the r-process will be discussed in comparison with observational data. The needs for experimental input on nuclear properties, observational signatures of an ongoing r-process, and a comprehensive framework for understanding the role of the r-process in chemical evolution of galaxies are emphasized.

* The talk will be given in English language..

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Sep.1st(Thu.)2016 10:00~
RIBF Hall (rm.201), RIBF bldg., RIKEN